December 12, 2000

MEMORANDUM

TO: Orville Green, Program Administrator
State Air Quality Program

FROM: Dan Redman, P.E., Staff Engineer
Civil/Environmental Engineering
Technical Services Program Office

THROUGH: Daniel Salgado, Lead Process Engineering
State Technical Services Office

SUBJECT: ***Technical Analysis for Tier I Operating Permit***
Avista Corporation

PERMITTEE:	Avista Corporation 13725 West Highway 53 Rathdrum, Idaho 83858
PERMIT NO:	055-00040
STANDARD INDUSTRIAL CLASSIFICATION	4911
DESCRIPTION:	Electricity Generation
KIND OF PRODUCTS:	Electricity Generation
RESPONSIBLE OFFICIAL:	Mr. Rob Fukai, Vice President, External Relations
PERSON TO CONTACT:	Mr. Hank Nelson, Environmental Compliance Coordinator
TELEPHONE NO:	(509) 495-4613
# OF FULL-TIME EMPLOYEES:	3
AREA OF OPERATION:	40 acres
FACILITY CLASSIFICATION:	A
COUNTY:	Kootenai
AIR QUALITY CONTROL REGION:	062
UTM COORDINATES:	510.0, 5294.3
EXACT PLANT LOCATION:	SW 1/4 Section 32, Township 25 North - Range 4 West

TABLE OF CONTENTS

PUBLIC COMMENT/EPA REVIEW

A 30-day public comment period on the Avista Corporation proposed Title V Operating Permit (TV OP) was held from August 10, 2000 to September 8, 2000 in accordance with IDAPA 58.01.01.364 (*Rules for the Control of Air Pollution in Idaho).* No comments were received from any affected state, though comments were received from Avista and the Idaho Association of Commerce and Industry (IACI). A hearing was not requested.

EPA was sent the Proposed Operating Permit and the technical analysis memorandum after the public comment/hearing for the forty-five (45) day review period. EPA did not provide any comments on the permit.

LIST OF ACRONYMS

ACFM	Actual Cubic Feet per Minute
AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
CFR	Code of Federal Regulations
CO	Carbon Monoxide
DEQ	Idaho Department of Environmental Quality
dscf	Dry Standard Cubic Feet
EF	Emission Factor
EPA	United States Environmental Protection Agency
gpm	Gallons per Minute
gr	Grain (1 lb = 7000 Grains)
HAPs	Hazardous Air Pollutants
Hg	Mercury
IC	Integrated Chip
IDAPA	Idaho Administrative Procedures Act
km	Kilometer
lb/hr	Pound per Hour
MMBTU	Million British Thermal Units
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_2	Nitrogen Dioxide
NOx	Nitrogen Oxides
NSPS	New Source Performance Standards
O_3	Ozone
PM	Particulate Matter
PM_{10}	Particulate Matter with an Aerodynamic Diameter of 10 Micrometer (μm) or Less
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
PTC	Permit to Construct
SCC	Source Classification Code
scf	Standard Cubic Foot
SO_2	Sulfur Dioxide
TSP	Total Suspended Particulates
T/yr	Tons per Year (1 Ton = 2000 lb)
μm	Micrometers
VE	Visible Emissions
VOC	Volatile Organic Compound

1. PURPOSE

The purpose of this memorandum is to set out the legal and factual basis for this proposed Tier I Operating Permit (OP) in accordance with IDAPA 58.01.01.362, *Rules for the Control of Air Pollution in Idaho (Rules).*

The Idaho Department of Environmental Quality (DEQ) staff has reviewed the information provided by Avista Corporation (formerly Washington Water Power) regarding the operation of their facility near Rathdrum, Idaho. This information was submitted based on the requirements of the Tier I OP, in accordance with Section 58.01.01.300 of the *Rules.*

2. SUMMARY OF EVENTS

On November 6, 1995, DEQ received the Tier I OP application from Avista Corporation for their Rathdrum facility. The application was prepared by Kleinfelder, Inc., the facility's consulting firm. On December 18, 1997, DEQ received Avista's Phase II Acid Rain Permit Application. The Phase II Acid Rain Permit Application was also submitted to EPA's Acid Rain Division in Washington DC, and EPA Region 10. Avista again updated their application on September 11, 1998. The application was determined to be complete on November 6, 1998.

A 30-day public comment period on the Avista Corporation proposed Title V Operating Permit (TV OP) was held from August 10, 2000 to September 8, 2000 in accordance with IDAPA 58.01.01.364 (*Rules for the Control of Air Pollution in Idaho).* No comments were received from any affected state, though comments were received from Avista and the Idaho Association of Commerce and Industry (IACI).

EPA was given the permit for a 45-day review period. No comments on the permit were provided by EPA.

3. BASIS OF THE ANALYSIS

The following documents were relied upon in preparing this memorandum and the Tier I OP:

a. Tier I Air Operating Permit Application, received January 2, 1996; and supplemental application materials received September 11, 1997, December 18, 1997, September 11, 1998, and February 22, 2000;

b. Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, January 1995, Office of Air Quality Planning and Standards, United States Environmental Protection Agency;

c. Guidance developed by EPA and DEQ;

d. Title V permits issued by other jurisdictions; and

e. Documents and procedures developed in the Title V Pilot Operating Permit Program.

4. REGULATORY ANALYSIS - GENERAL FACILITY

4.1 Facility Description

4.1.1 General Process Description

The Rathdrum Combustion Turbine Project consists of two General Electric model PG7111EA Frame 7 combustion gas turbine package power plants. Each unit is 130 feet long, 40 feet wide, and 35 feet high. Each turbine package produces 83.5 megawatts of electricity at full load operation conditions at ISO conditions. The turbines are operated on a simple cycle basis and are fueled exclusively by pipeline-quality natural gas. No backup fuels other than gas are used at the facility. The Rathdrum Combustion Turbine Project was designed to provide electricity to off-site consumers during peak power demands and on an as needed basis.

Each combustion turbine consists of a compressor, a Dry Low NOx combustor, a turbine, and an electrical generator. Incoming natural gas is mixed with compressed air as it enters the GE Frame 7 turbines. The combination of natural gas and compressed air is combusted in the combustor section of the turbine. The resulting hot exhaust gas drives the turbine blades which rotate a shaft driving both the inlet air compressor and the electric generator within the turbine. Some of the rotational energy of the shaft compresses the inlet air, but the majority of the rotational energy of the shaft propels the generator to produce the facility's electrical output.

Since the facility was designed to provide electricity on an intermittent basis, the turbines are not continually operated. When the need arises, the turbines (one or both) are started up and brought up to full load (base load) and maintained at full load until they are shut down. The duration of operation of the turbines depends on the demand.

4.1.2 Facility Classification

The facility is classified as major, in accordance with IDAPA 58.01.01.008.10, for Tier I permitting purposes because the facility has the potential to emit carbon monoxide at 240 tons per year and nitrogen oxides at 235.5 tons per year. The facility is also major as defined in IDAPA 58.01.01.007.55; but is not subject to Prevention of Significant Deterioration permitting requirements because the facility's potential to emit is below 250 tons per year.

4.1.3 Area Classification

The facility is located within Air Quality Control Region 62 and is located in Kootenai County, which is classified as attainment or unclassifiable for all federal and state criteria pollutants (i.e., SO_2, NOx, CO, PM_{10}, ozone, fluorides, and lead). There are no Class I areas within ten (10) kilometers (km) of the facility.

4.1.4 Permitting History

Washington Water Power (Avista) was issued a Permit to Construct on May 21, 1993.

The Permit was modified on August 6, 1993 and on August 4, 1999.

4.1.5 Emission Description

The emissions from the Avista facility are largely gaseous emissions in the form of natural gas combustion by-products. The facility does have minor sources of fugitive dust from vehicles traveling within the facility. There is about 1,500 linear feet of paved road/maintenance area at the facility; of which only a small portion is traveled on a daily basis. There are also some unpaved areas within the facility boundary; however, vehicles do not normally travel in these areas.

Hazardous air pollutant (HAP) emissions are present from the combustion of natural gas, but the quantities are insignificant. The facility has provided emission estimates for HAP emissions which confirms this.

TABLE 1

ALLOWABLE POINT SOURCE EMISSIONS FROM AVISTA CORPORATION (TOTAL FOR ALL TURBINES)	
POLLUTANT	**EMISSION RATES (T/YR)**
PM & PM_{10}	46.2
CO	240
VOC	11.9
NOx	235.5
SO_2	19.8
TOTAL	**553.4**

4.1.6 Insignificant Activities

In accordance with IDAPA 58.01.01.317.01.b.i the facility has listed the following activities which are insignificant:

1) Operation and the loading and unloading of storage tanks and storage vessels, with lids or other appropriate closure and less than two hundred sixty (260) gallon capacity (35 cft), heated only to the minimum extent to avoid solidification if necessary.

2) Operation and the loading and unloading of storage tanks, not greater than one thousand one hundred (1,100) gallon capacity, with lids or other appropriate closure, not for use with HAPs, maximum vapor pressure 550 millimeters (mm) mercury (Hg).

3) Operation and the loading and unloading of storage tanks, not greater than ten thousand (10,000) gallon capacity, with lids or other appropriate closure, vapor pressure not greater than 80 mm Hg at 21 degrees C.

4) Operation and the loading and unloading storage of butane, propane, or liquefied petroleum gas (LPG), storage tanks, vessel capacity under forty thousand gallons.

5) Combustion source less than five million (5,000,000) Btu/hr, exclusively using natural gas, butane, propane, and/or LPG.

6) Welding using not more than one ton per day of welding rod.

7) Space heaters and hot water heaters using natural gas, propane, or kerosene and generating less than five million (5,000,000) Btu/hr.

4.2 Facility-Wide Applicable Requirements

4.2.1 Fugitive Particulate Matter - IDAPA 58.01.01.650-651

4.2.1.1 Requirement

Facility-Wide Condition A.1 states that, all reasonable precautions shall be taken to prevent particulate matter from becoming airborne in accordance with IDAPA 58.01.01.650-651.

4.2.1.2 Compliance Demonstration

Facility-wide Condition A.2 states that the permittee is required to monitor and record the frequency and the methods used by the facility to reasonably control fugitive particulate emissions. IDAPA 58.01.01.651 gives some examples of ways to reasonably control fugitive emissions, which includes: use of water or chemicals, application of dust suppressants, use of control equipment, covering of trucks, paving of roads or parking areas, and removal of materials from streets.

Facility-wide Condition A.3 requires that the permittee maintain records of all fugitive dust complaints received. In addition, the permittee is required to take appropriate corrective action as expeditiously as practicable after a valid complaint is received. The permittee is also required to maintain records which shall include the date that each complaint was received and a description of the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

To ensure that the methods being used by the permittee to reasonably control fugitive particulate matter emissions, whether or not a complaint is received, Facility-wide Condition A.4 requires that the permittee conduct periodic inspections of the facility. The permittee is required to inspect potential sources of fugitive emissions during daylight hours and under normal operating conditions. If the permittee determines that the fugitive emissions are not being reasonably controlled, the permittee shall take corrective action as expeditiously as practicable. The permittee is also required to maintain records of the results of each fugitive emission inspection.

Both Facility-wide Conditions A.3 and A.4 require the permittee to take corrective action as expeditiously as practicable. In general, the Department believes that taking corrective action within twenty-four hours of receiving a valid complaint or determining that fugitive particulate emissions are not being reasonably controlled meets the intent of this requirement. However, it is understood that, depending on the circumstances, immediate action or a longer time period may be necessary.

4.2.2 Control of Odors - IDAPA 58.01.01.775-776

4.2.2.1 Requirement

Facility-wide Condition A.5 and IDAPA 58.01.01.776 both state that: *"No person shall allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids to the atmosphere in such quantities as to cause air pollution."* This condition is currently considered federally enforceable until such time it is removed from the SIP, at which time it will be a state-only enforceable requirement.

4.2..2.2 Compliance Demonstration

Facility-wide Condition A.6 requires the permittee to maintain records of all odor complaints received. If the complaint has merit, the permittee is required to take appropriate corrective action as expeditiously as practicable. The records are required to contain the date that each complaint was received and a description of the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

Facility-wide Condition A.6 requires the permittee to take corrective action as expeditiously as practicable. In general, the Department believes that taking corrective action within twenty-four hours of receiving a valid odor complaint meets the intent of this requirement. However, it is understood that, depending on the circumstances, immediate action or a longer time period may be necessary.

4.2.3 Visible Emissions - IDAPA 58.01.01.625

4.2.3.1 Requirement

IDAPA 58.01.01.625 and Facility-wide Condition A.7 state that *"(No) person shall discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period which is greater than twenty percent (20%) opacity as determined . . ."* by IDAPA 58.01.01.625. This provision does not apply when the presence of uncombined water, nitrogen oxides, and/or chlorine gas are the only reasons for the failure of the emission to comply with the requirements of this rule.

4.2.3.2 Compliance Demonstration

To ensure reasonable compliance with the visible emission rule, Facility-wide Condition A.8 requires that the permittee conduct routine visible emissions inspections of the facility. The permittee is required to inspect potential sources of visible emissions, during daylight hours and under normal operating conditions. If any visible emissions are present from any point of emission covered by this section, the permittee must take appropriate corrective action as expeditiously as practicable. If opacity is determined to be greater than twenty percent (20%) for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period, the permittee must take corrective action and report the exceedance in its annual compliance certification and in accordance with the excess emissions rules in IDAPA 58.01.01.130-136. The permittee is also required to maintain records of the results of each visible emissions inspection which must include the date of each inspection and a description of the permittee's assessment of the conditions existing at the time visible emissions are present, any corrective action taken in response to the visible emissions, and the date corrective action was taken.

It should be noted that if a specific emission unit has a specific compliance demonstration method for visible emissions that differs from Facility-wide Condition A.8, then the specific compliance demonstration method overrides the requirement of Condition A.8. Condition A.8 is intended for small sources that would generally not have any visible emissions.

Facility-wide Condition A.8 requires the permittee to take corrective action as expeditiously as practicable. In general, the Department believes that taking corrective action within twenty-four hours of discovering visible emissions meets the intent of this requirement. However, it is understood that, depending on the circumstances, immediate action or a longer time period may be necessary.

4.2.4 Startup, Shutdown, Scheduled Maintenance, Safety Measures, Upset and Breakdown- IDAPA 58.01.01.130-136

4.2.4.1 Requirement

Facility-wide Condition A.9 requires that the permittee comply with the requirements of IDAPA 58.01.01.130-136 for startup, shutdown, scheduled maintenance, safety measures, and upset and breakdowns. This section is fairly self explanatory and no additional detail is necessary in this technical analysis. It should, however, be noted that subsections 133.02, 133.03, 134.04, and 134.05 are not specifically included in the permit as applicable requirements. These provisions of the *Rules* only apply if the permittee anticipates requesting consideration under Subsection 131.02 of the *Rules* to allow the Department to determine if an enforcement action to impose penalties is warranted. Section 131.01 states *". . . The owner or operator of a facility or emissions unit generating excess emissions shall comply with Sections 131, 132, 133.01, 134.01, 134.02, 134.03, 135, and 136, as applicable. If the owner or operator anticipates requesting consideration under Subsection 131.02, then the owner or operator shall also comply with the applicable provisions of Subsections 133.02, 133.03, 134.04, and 134.05."* Failure to prepare or file procedures pursuant to Sections 133.02 and 134.04 is not a violation of the *Rules* in and of itself, as stated in Subsections 133.03.a and 134.06.b. Therefore, since the permittee has the option to follow the procedures in Subsections 133.02, 133.03, 134.04, and 134.05; and is not compelled to, the subsections are not considered applicable requirements for the purpose of this permit and are not included as such.

4.2.4.2 Compliance Demonstration

The compliance demonstration is contained within the text of Facility-wide Condition A.9. No further clarification is necessary here.

4.2.5 Chemical Accident Prevention Provisions - 40 CFR Part 68

4.2.5.1 Requirement

Any facility that has more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115 must comply with the requirements of the Chemical Accident Prevention Provisions at 40 CFR Part 68 no later than the latest of the following dates:

Three years after the date on which a regulated substance present above a threshold quantity is first listed under 40 CFR 68.130; or

The date on which a regulated substance is first present above a threshold quantity in a process.

This facility is not currently subject to the requirements of 40 CFR Part 68. However, should the facility ever become subject to the requirements of 40 CFR Part 68, then it must comply with the provisions contained in 40 CFR Part 68 by the time listed above.

The facility is required to burn natural gas exclusively. A combustion evaluation and manufacturer guarantee proves continuous compliance with grain-loading limitations of IDAPA 58.01.01.677. Combustion evaluation may be seen in Appendix A.

4.3 Applicable Requirements From Permit to Construct

Listed below is each permit-to-construct term followed by how the term appears in the operating permit:

4.3.1 Emission Limits

4.3.1.1 Nitrogen Oxide Emission Limit

Section 1.1 of PTC 055-00040 (August 4, 1999)

Emissions of nitrogen oxides from each of the turbines shall not exceed 0.010 percent by volume of exhaust gas at 15 percent oxygen and on a dry basis as required by 40 CFR 60.322(a). Emissions of nitrogen oxides from turbine operations (a total of two) shall not exceed any applicable emission rate limits listed in Appendix A.

The TV Operating Permit contains the first sentence of this requirement as an exact quote.

The second sentence of this provision has been clarified by adding the following operating permit restriction: "Emissions of nitrogen oxides from turbine operations (a total of two) shall not exceed 104 pounds per hour or 235.5 tons per year."

Compliance with the nitrogen oxide permit limit is determined by continuous emission monitoring and reporting.

4.3.1.2 Sulfur Dioxide Emission Limit

Section 1.2 of PTC 055-00040 (August 4, 1999)

Emissions of sulfur dioxide from each of the turbines shall not exceed 0.015 percent by volume of exhaust gas at 15 percent oxygen and on a dry basis as required by 40 CFR 60.333(a) nor shall any fuel containing sulfur in excess of 0.8 percent by weight be burned as required by 40 CFR 60.333 (b). Emissions of sulfur dioxide from turbine operations (a total of two) shall not exceed any applicable emission rate limits listed in Appendix A.

The first sentence of this requirement was incorporated as written into the OP permit. The permit now limits emissions during any consecutive twelve (12) month period. This change is incorporated for all emission limits which were originally for a calendar year. As with the nitrogen oxide limit, the sulfur dioxide emission limits of Appendix A were clarified by incorporating the following into the OP permit: "Emissions of sulfur dioxide (SO_2) from the turbine operations (a total of two) shall not exceed 6 pounds per hour or 240 tons per year."

There is a difference in the form of the original permit conditions and the condition that is in the OP. The original permit limited emissions to yearly emissions, and was originally issued when year was defined as a "calendar year" by the *Rules for the Control of Air Pollution in Idaho.* The change in the original form is directly the result of a change of DEQ/EPA policy.

Compliance with the sulfur dioxide limit is determined by requiring pipeline-quality natural gas be combusted, a limitation on the sulfur content, and limitations on the hours of operation.

4.3.1.3 Particulate Matter, Carbon Monoxide and VOC Emissions

Section 1.3 of PTC 055-00040 (August 4, 1999)

Emissions of particulate matter (PM), particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers (PM-10), carbon monoxide (CO), and volatile organic compounds (VOC) from the turbine operations (a total of two) shall not exceed any applicable emission rate limits listed in Appendix A.

These provisions of the permit have been broken down to regulate each pollutant type individually, and the reference to Appendix A has been removed, because the emission limits are given in the text of the permit now. Listed below are the OP conditions which clarify the original language.

"Particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers (PM-10) shall not exceed 14 pounds per hour or 46.2 tons per any consecutive 12 months."

"Emissions of carbon monoxide (CO) from the turbine operations (a total of two) shall not exceed 106 pounds per hour or 240 tons per any consecutive 12 months."

"Emissions of volatile organic compounds (VOC) from the turbine operations (a total of two) shall not exceed 3.6 pounds per hour or 11.9 tons per any consecutive 12 months."

There is a difference in the form of the original permit conditions and the condition that is in the OP permit. The original permit limited emissions to yearly emissions, and was originally issued when "year" was defined as a "calendar year" by the *Rules for the Control of Air Pollution in Idaho.* The change in the original form is directly the result of a change of DEQ/EPA policy.

Compliance with the particulate matter emission limits is determined by using EPA AP-42 emission factors and limitations on the hours of operation. Compliance with the carbon monoxide emission limit is determined by requiring continuous emission monitoring. Compliance with the VOC limit is determined by limiting the hours of operation and using a manufacturer's VOC emission rate guarantee.

4.3.1.4 Visible Emissions

Section 1.4 of PTC 055-00040 (August 4, 1999)

Visible emissions from each of the turbines shall not exceed twenty percent (20%) opacity for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period as required by IDAPA 58.0.01.625 (Rules for the Control of Air Pollution in Idaho). Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

This provision has been incorporated into the OP as a general provision.

4.3.2 Operating Requirements

4.3.2.1 Fuel

Section 2.1 of PTC 055-00040 (August 4, 1999)

Each of the turbines shall be exclusively fired by natural gas only.

This permit condition was quoted in the OP.

4.3.2.2 Annual Hours of Operation

Section 2.2 of PTC 055-00040 (August 4, 1999)

The total combined turbine operations shall be restricted to a maximum of 13,200 hours in a calendar year as per applicant's submittal.

This permit condition was quoted in the OP.

4.3.3 Monitoring

Compliance assurance monitoring (CAM) requirements of 40 CFR 64 do not apply to this source because the source is exempt from the requirements at 40 CFR 64.(b)(iii) and 40 CFR 64.(b)(vi). The source is exempt under 40 CFR 64.(b)(iii) because the source is regulated by the acid rain requirements of the Clean Air Act and is exempt under 40 CFR 64.(b)(vi) because the Part 70 permit (OP permit) will incorporate continuous compliance methods for each pollutant which has the potential to be emitted over major source thresholds.

4.3.3.1 Oxygen and Carbon Monoxide Monitoring

Section 3.1 of PTC 055-00040 (August 4, 1999)

The permittee shall install, calibrate, maintain, and operate a continuous emissions monitoring system for the monitoring and recording of stack gas concentrations of oxygen and carbon monoxide from each turbine. The system shall be certified by the manufacturer to be accurate within ± 5 percent and shall be calibrated on an annual basis in accordance with the manufacturer's instructions. The continuous emissions monitoring system shall conform with the requirements and specifications in accordance with 40 CFR 60.

This permit condition has to be changed from its original form for several reasons. The most obvious reason is that there are no carbon monoxide or oxygen continuous emission monitoring requirements that apply to this source in accordance with 40 CFR 60. Because of this, the permit had to be changed to specify what monitoring methods must be employed to demonstrate compliance with the permit.

In order to clarify the language of the PTC, the OP requires that oxygen concentrations be continuously monitored and recorded using methods which are given in 40 CFR 75. The permittee has submitted in their October 24, 1995 CEM Certification application to EPA Region 10 and Idaho DEQ. This plan certifies compliance with 40 CFR 75 monitoring requirements including the requirement to measure oxygen within ≤ 0.5 percent. Also included is certification that the CEM for CO is within ±5% accuracy. Since the facility has certified both carbon monoxide and oxygen to be within ±5% accuracy in its October 24, 1995 submittal to DEQ and EPA for the permit requirement has been fulfilled, is now considered obsolete and has been removed from the permit.

4.3.3.2 Sulfur and Nitrogen Monitoring

Section 3.2 of PTC 055-00040 (August 4, 1999)

The permittee shall monitor sulfur and nitrogen contents of the fuel being fired in each of the turbines as required by 40 CFR 60.334(b).

This permit term has been changed to reflect the custom fuel monitoring plan which EPA has approved for this facility in accordance with 40 CFR 60. The language in the OP is simply a direct quotation of the EPA-approved Monitoring Plan dated April 2, 1998.

4.3.3.3 Performance Test

Section 3.3 of PTC 055-00040 (August 4, 1999)

Within 60 days after achieving maximum production rate, but not later than 180 days after initial startup, the permittee shall conduct a performance test to measure oxides of nitrogen emissions from one of the turbines as required by 40 CFR 60.8 and in accordance with the test methods and procedures in 40 CFR 60.334(a). Visible emissions shall be observed and recorded using the methods specified in IDAPA 58.01.01.625. During the performance test, the amount of natural gas used shall be recorded.

This permit provision is now obsolete because the facility has performed the visible emissions observation testing and nitrogen oxide performance testing which is required and has therefore not been included in the OP permit. The visible emissions monitoring results and nitrogen oxide monitoring results were received by DEQ on September 13, 1995 and February 17, 1995.

4.3.3.4 Hours of Operation and Natural Gas Usage

Section 3.4 of PTC 055-00040 (August 4, 1999)

The permittee shall monitor and record the hours of operation and hourly usage of natural gas from each of the turbines.

This provision was incorporated into the OP.

4.3.3.5 Nitrogen Oxides Monitoring

Section 3.5 of PTC 055-00040 (August 4, 1999)

The permittee shall install, calibrate, maintain, and operate a continuous emissions monitoring system for the monitoring and recording of stack gas concentrations of nitrogen oxides from each turbine. The system shall be certified by the manufacturer to be accurate within ± 5 percent and shall be calibrated on an annual basis in accordance with the manufacturer's instructions. The continuous emissions monitoring system shall conform with the requirements and specifications in accordance with 40 CFR 60.

This PTC provision has been clarified. The original form required CEM monitoring in accordance with 40 CFR 60. In fact CEM monitoring of nitrogen oxide emission is not required by 40 CFR 60 for this source, therefore there is no way to be "in accordance with 40 CFR 60". Nitrogen oxides are required to be continuously monitored and recorded by 40 CFR 75 and the OP has been clarified to reflect. The certification of accuracy of the CEM, including calibration, operation and maintenance have been addressed in the permittee's submittal of a CEM Certification Statement to EPA and Idaho DEQ on November 2, 1995.

4.3.4 Specific Reporting Requirements

4.3.4.1 Performance Test Protocol

Section 4.1 of PTC 055-00040 (August 4, 1999)

The permittee shall submit a test protocol for the performance test required in Section 3.3 of this permit to the Department for approval at least thirty (30) days prior to the test date.

This requirement is not incorporated into the OP because the facility has already completed its one-time requirement. The source test reports, which were done in accordance with a DEQ protocol, were submitted on September 13, 1995 and February 17, 1995.

4.3.4.2 Performance Test Results and Emissions Evaluations

Section 4.2 of PTC 055-00040 (August 4, 1999)

The permittee shall submit a written report of the performance test results and visible emissions evaluations as required in Section 3.3 to the Department and the United States Environmental Protection Agency within (30) days of performing the test.

This requirement is not incorporated into the OP because the facility has already completed its one-time requirement. The source test reports, which were done in accordance with a DEQ protocol, were submitted on September 13, 1995 and February 17, 1995.

4.3.4.3 Continuous Emissions Monitoring Reports

Section 4.3 of PTC 055-00040 (August 4, 1999)

The permittee shall report the continuous emissions monitoring data as required in Sections 3.1 and 3.5 to the Department and the United States Environmental Protection Agency in a calendar quarterly report to be received no later than 30 days after each calendar quarter.

This provision was incorporated into the OP.

4.3.4.4 Fuel Contents and Usage

Section 4.4 of PTC 055-00040 (August 4, 1999)

The permittee shall record and submit the sulfur and nitrogen contents of the fuel being fired as specified in Section 3.2 and the hourly usage of natural gas as indicated in Section 3.4 to the Department and the United States Environmental Protection Agency in a calendar quarterly report to be received no later than 30 days after each calendar quarter.

This provision has been changed to the requirements of the EPA-approved custom fuel monitoring plan. The plan was approved by EPA on April 2, 1998. Following are the requirements of the plan which has been incorporated into the OP:

> The permittee shall monitor fuel sulfur content in accordance with the April 2, 1998 custom alternative monitoring plan approved by EPA Region X. Following are the requirements of the Alternative Monitoring Plan:
>
> The alternative applies only during the use of pipeline-quality natural gas supplied exclusively by Pacific Gas Transmission Company and does not alter any of the other requirements of NSPS Subpart A and GG which may apply to the facility.

The permittee shall monitor the sulfur content of the natural gas semi-annually. The permittee may submit data from its fuel supplier, Pacific Gas Transmission Company, under a separate cover.

Nitrogen monitoring shall be waived for pipeline-quality natural gas.

The permittee shall maintain records of all sulfur monitoring data.

The permittee shall maintain a record documenting a constant supplier or source of fuel. A substantial change in fuel quality shall be considered a change in fuel supply.

The permittee shall maintain a daily record of all turbine operation on fuels other than pipeline-quality natural gas.

The permittee shall maintain all records on-site for a period of five years from the generation of each such record.

The permittee shall report results of all sulfur monitoring semi-annually.

The permittee shall report any changes in supplier or source of fuel within 60 days of such a change.

The permittee shall report use of any fuel other than pipeline-quality natural gas within 60 days of such use.

4.3.4.5 Turbine Hours of Operation

Section 4.5 of PTC 055-00040 (August 4, 1999)

The permittee shall compile the hours of operation for each of the turbines in a monthly report to be kept on-site for a two (2) year minimum period and made available to Department representatives upon request.

This provision was incorporated as written into the OP.

4.3.4.6 Responsible Official Certification

Section 4.6 of PTC 055-00040 (August 4, 1999)

All documents including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, and compliance certifications submitted to DEQ shall contain a certification by a responsible official. The certification shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.

This provision was incorporated as written into the OP.

4.4 Recordkeeping

The permittee is required to maintain sufficient recordkeeping to assure compliance with all of the terms and conditions of the permit, as required by IDAPA 58.01.01.322.a and b. In addition, the permittee shall

retain records of all monitoring and other requirements in the Tier I OP for the most recent five (5) year period. These records shall be made available to DEQ representatives upon request.

4.5 General Reporting Requirements

The permittee shall comply with the following reporting requirements:

4.5.1 Compliance Assurance Reporting

Sufficient reporting to assure compliance with all of the terms and conditions of the OP. Reports for any required monitoring shall be submitted at least every six (6) months, in accordance with IDAPA 58.01.01.322.08.

4.5.2 Permit Deviations Reporting

In accordance with IDAPA 58.01.01.322.08, Avista must report all instances of deviations from permit requirements. Therefore, even if specific monitoring is not required by the OP, the permittee must report any deviations of which he/she is aware.

4.5.3 Excess Emission Reporting

Excess emission reporting, as required to comply with the provisions of IDAPA 58.01.01.130-136.

5. ALTERNATIVE OPERATING SCENARIOS

No alternative operating scenarios were identified by the applicant.

6. TRADING SCENARIOS

There were no trading scenarios requested by the facility.

7. EXCESS EMISSIONS

Avista did not submit procedures to minimize excess emissions for possible excuses from penalties.

8. INSIGNIFICANT ACTIVITIES

Listed below are the insignificant activities described by the source in accordance with IDAPA 58.01.01.317:

Description	Insignificant Activities IDAPA Citation Section 317.01.b.i
Storage tanks with lids or closure < 260 gal.	317.01.b.i.1
Storage tanks < 1,100 gallons, no HAPs, Maximum vapor pressure 550 mm mercury (Hg).	317.01.b.i.2
VOC storage tank < 10,000 gal, with lid or closure, vapor pressure < 80 mm Hg @ 21 degrees Celsius; and gasoline storage tanks with lid or closure < 10,000 gallons	317.01.b.i.3
Butane, propane, and LPG storage tank < 40,000 gallons	317.01.b.i.4
Natural gas, butane, propane (LPG) combustion < 5,000,000 Btu/hr	317.01.b.i.5
Welding < one ton per day of welding rod	317.01.b.i.9
Water cooling towers and ponds, not using chromium inhibitors, not using barometric jets or condensors, not > 10,000 gpm, not in direct contact with process streams containing regulated air pollutants	317.01.b.i.13
Cleaning and stripping activities and equipment, < 1% VOC by weight. Acid solutions on metallic substrate is not insignificant.	317.01.b.i.26
An emission unit or activity with emissions less than or equal to 10% of levels contained in IDAPA 58.01.01.006 of the definition of significant and no more than one (1) ton per year of any hazardous air pollutant.	317.01.b. i.30
Space heater using natural gas, propane, or kerosene < 5,000,000 Btu/hr	317.01.b.i.18

9. COMPLIANCE PLAN AND COMPLIANCE CERTIFICATION

9.1 Compliance Plan

Avista Corporation shall submit a compliance plan, indicating each emissions unit is in compliance, and will continue to comply with the terms and conditions of IDAPA 58.01.01.314.10. In addition, if there are additional terms or conditions applicable to the source, Avista will meet the terms and conditions on a timely basis, as required by DEQ. Furthermore, Avista will submit a compliance schedule, if the emissions unit is not in compliance.

9.2 Compliance Certification

Avista's application for this permit contains a statement signed by their responsible official certifying they are in compliance with all applicable requirements.

Avista shall submit a periodic compliance certification for each applicable requirement in accordance with Facility-wide requirements of the permit. The permittee must certify compliance with all terms and conditions in the OP.

10. ACID RAIN PERMIT

Avista Corporation is subject to the Acid Rain permitting Requirements of 40 CFR 72 through 40 CFR 75. The facility does not have any requirements to obtain sulfur dioxide allowance from EPA nor does it have a nitrogen oxide emission limit through these regulations. The substance of the regulation which applies to this facility is the requirement to monitor emissions and report of the results.

The Acid Rain portion of the permit was drafted in the form of an EPA model permit. The model permit and recommendations for refinement of the model permit to fit Avista's facility was provided by Mr. Bob Miller, EPA Acid Rain Division, Washington D.C. The substance of the Acid Rain permit for Avista is that they must comply with the requirements listed on the Phase II application which they submitted.

11. REGISTRATION FEES

The emissions fees for the permitted sources will be determined according to IDAPA 58.01.01.525-538 . The facility is in compliance with registration fee requirements.

12. CHEMICAL ACCIDENT PREVENTION (40 CFR 68)

Avista Corporation has certified that it does not store any of the 77 toxic substances identified under 40 CFR 68 above threshold quantities, nor does Avista store any substances that meet the criteria for flammability specified in 40 CFR 68 above threshold quantities.

13. RECOMMENDATION

Based on the Tier I OP application and review of the federal regulations and state rules, staff recommends that DEQ issue a Tier I OP to Avista for their facility, located near Rathdrum, Idaho.

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Attachments

cc: DEQ State Office
Coeur d'Alene RO